

**CLINTWOOD ELKHORN MINING COMPANY
23956 HWY 194 EAST
FEDSCREEK, KENTUCKY 41524**

**DNR PERMIT NO. 898-0822
AMENDMENT NO. 1**

**KPDES COAL GENERAL PERMIT COVERAGE
NOTICE OF INTENT (NOI-CM)
SDAA**

MARCH 1, 2010

PREPARED BY:

SUMMIT ENGINEERING, INC.

**PO Box 40
Big Rock, VA 24603
276/530-7220**

**131 Summit Drive
Pikeville, KY 41501
606/432-1447**

**120 Prosperous Place
Lexington, KY 40509
859/264-9860**

**203 Main Avenue
Logan, WV 25601
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**P.O. Box 1035
Hazard, KY 41702
606-439-1497**



SUMMIT ENGINEERING, INC.

March 1, 2010

Division of Water
Surface Water Permits Branch
200 Fair Oaks Lane
Frankfort, Kentucky 40601

RE: Clintwood Elkhorn Mining, Inc.
DNR Permit No. 898-0822
Amendment 1

To Whom It May Concern:

As per the new requirements of the SDAA, this application is being submitted with the necessary information for issuance. Please find attached amendment #1 for Clintwood Elkhorn Mining, Inc. DNR # 898-0822.

This is an amendment to the existing permit to add additional mining for the Blair seam in and around Persimmon Branch in Pike County. The amendment will add six (6) upland sediment structures. The amendment also adds six (6) KPDES points.

If you should have any questions concerning this application, please contact me at our Virginia office at 276/530-7220.

Sincerely,

Angela M. Bandy
Permit Technician

Cc: file



SUMMIT ENGINEERING, INC.

February 19, 2010

Division of Water
Surface Water Permits Branch
200 Fair Oaks Lane
Frankfort, Kentucky 40601

RE: Clintwood Elkhorn Mining Co.
DNR Permit No. 898-0822
Amendment 1

To Whom It May Concern:

An effluent for Clintwood Elkhorn Mining Co. DNR Permit No. 898-0822 was submitted with the original application. We are therefore submitting this effluent "waiver request".

This permit proposes to contour and auger mine the Blair and Blair Floor seams on Persimmon Branch in Pike County.

The following information applies to the sediment structures on this permit:

1. Structures are approximately 1 mile or less from the collected effluent sample.
2. Sediment structures are less than 0.3 miles from their respective receiving streams.
3. Sediment structures are designed to accommodate 24-hr/25-yr storm events.
4. The top elevations of the structures are within 60 feet of one another.

Per the analysis of the seam(s) being mined and the overburden associated with this seam, "there are no known major structural features such as faults or folds located in the permit area which may affect the overburden strata or require special mining plans". Additionally, the results of the acid-base account testing indicated that "there is no potential for short-term or long-term acid mine drainage".

For this reason, we request that the single effluent provided be considered sufficient for this permit.

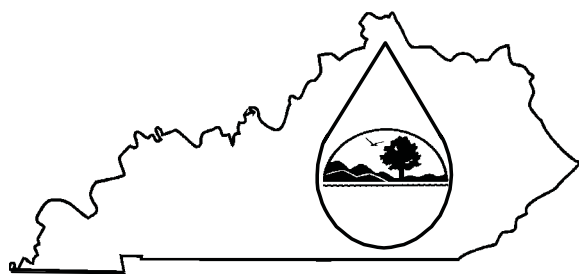
If you should have any questions concerning this application, please contact Summit Engineering, Inc. at 276/530-7220.

Sincerely,

J. J. Shackelford
Clintwood Elkhorn Mining Co.
President

Cc: file

FORM NOI-CM



KENTUCKY POLLUTION DISCHARGE ELIMINATION SYSTEM (KPDES)

Permit Application for General Permit Coverage For Coal Mining Operations

This is an application for:

- ☐ New mining operation coverage.
☒ Modification of coverage for additional area in same watershed.
☐ Modification of coverage for additional area in different watershed.
☐ Previously covered by an individual permit.

In order to qualify for coverage under the *Coal General Permit*, the coal mining operation must have obtained or is obtaining a Surface Mining Control and Reclamation Act (SMCRA) permit.

For additional information contact:
Surface Water Permits Branch (502) 564-3410

If Modification is checked, state reason for Modification: Add six (6) on bench dugouts.

For Agency Use	Permit No. (Leave Blank)	K	Y	G	O					
For Agency Use	AI ID (Leave Blank)									

SECTION I – PERMITTEE INFORMATION

Applicant Name:	Clintwood Elkhorn Mining Company		
Mailing Address:	23956 State Highway 194E	City, State, Zip Code:	Feds Creek, Kentucky 41524
Contact Name:	J. J. Shackelford	Title:	President
Contact Name:	N/A	Telephone Number:	606-835-4006
		E-mail Address:	c/o ddchildress@tecoenergy.com

SECTION II – GENERAL SITE INFORMATION

Attach an Adobe Acrobat PDF file of the full color USGS 7½-minute quadrangle map with the facility site clearly marked.			
Attach Adobe Acrobat PDF files of the Mining and Reclamation Plan map and the Environmental Resources Information map.			
For Amendments or Modifications attach a Adobe Acrobat PDF file showing only the amended or modified areas.			
SMCRA Permit Number:	898-0822 Am 1	Type of Operation:	Surface
County where facility is located:	Pike	Nearest community:	Woodman
Nearest public road intersection:	Persimmon Br. w/ KY Rt 2059	Nearest named stream:	Persimmon Branch
Latitude (decimal degrees):	37.515	Longitude (decimal degrees):	-82.0486
		Method used (see instructions):	Topographic Map Coordinates
Surface acreage:	Current: 77.3	Amended: 36.8	Auger acreage: Current: 270.6
			Amended: -96.2

SECTION III – SPECIFIC SITE INFORMATION

Number of sediment structures proposed:	6	(complete sediment structure inventory table on page 3)
Number of fills proposed:	0	(complete fill inventory table on page 4)
Number of stream crossings proposed:	0	(complete stream crossings inventory table on page 4)
Nearest downstream public water supply:	Matewan	Distance in stream miles: 20

SECTION IV – COE CWA SECTION 404 PERMIT INFORMATION

Has a Clean Water Act Section 404 permit been obtained from the Army Corps of Engineers for any or all sediment structures, fills or stream crossings? No – Non Jurisdiction Requested	
Permit Number:	N/A
Permit Issuance Date:	N/A
Activities covered by permit: N/A	

FORM NOI-CM

SECTION V – OTHER ENVIRONMENTAL APPROVALS AND PERMIT INFORMATION

CATEGORY	EXISTING PERMIT WITH NUMBER	PERMIT NEEDED WITH PLANNED APPLICATION DATE
401 Water Quality Certification	N/A	N/A
Drinking Water	N/A	N/A
Wastewater Construction	N/A	N/A
Water Withdrawal	N/A	N/A
Air Emissions	N/A	N/A
Solid or Special Wastes	N/A	N/A
Hazardous Waste Registration /Permit	N/A	N/A

SECTION VI – EFFLUENT CHARACTERISTICS

Samples and analysis for the pollutants or pollutant characteristics listed on the Effluent Characteristics Data Sheet (page 5) shall be performed for each, sediment control structure, either existing or proposed, within each watershed. All samples and analysis are to be taken and performed in accordance with the requirements of 40 CFR Part 136. Complete an Effluent Characteristics Data Sheet for each sample collected and analyzed.

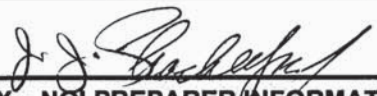
SECTION VII – BEST MANAGEMENT PRACTICES (BMP) PLAN

Check one the following boxes.

- ☒ The generic Coal BMP Plan shall be completed and implemented for this activity within 90 days of the granting of coverage under the KPDES Coal General Permit.
- ☐ A site specific BMP shall be developed, and implemented for this activity within 90 days of the granting of coverage under the KPDES Coal General Permit. (A copy of the BMP shall be submitted to the DOW for review and comment prior to implementation.)
- ☐ The Oil & Grease requirements of the KPDES Coal General Permit shall be followed.

SECTION VIII – CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME AND OFFICIAL TITLE (Type or Print)	J. J. Shackelford – President	Telephone Number: (Area Code and Number)	(606) 835 - 4006
SIGNATURE:		DATE:	Feb 22, 2010

SECTION IX – NOI PREPARER INFORMATION

Preparer Name:	Angela Bandy
Company Name	Summit Engineering, Inc.
Mailing Address:	P.O. Box 40
City, State, Zip Code:	Big Rock, Virginia 24603
Phone Number:	Work # (276) 530 – 7220 e-mail Address: abandy@summit-engr.com

This completed application form and attachments should be sent to: Surface Water Permits Branch, Division of Water, 200 Fair Oaks Lane, Frankfort, Kentucky 40601. Questions should be directed to: Surface Water Permits Branch, Operational Permits Section at (502) 564-3410.

FORM NOI-CM

Sediment Structure Inventory

ID Number	Upland/In stream	Permanent/Temporary	Drainage Area (acres)	Activities	Latitude	Longitude	Receiving Water (name)
D-4A	Upland	Temporary	22.6	Sediment Control for Mining Areas	37-30-32	82-02-41	Unknown Tributary of Persimmon Branch
D-9	Upland	Temporary	57.9	Sediment Control for Mining Areas	37-30-32	82-02-20	Unknown Tributary of Lower Elk Creek
D-10	Upland	Temporary	26.4	Sediment Control for Mining Areas	37-30-35	82-01-59	Unknown Tributary of Right Fork of Lower Elk Creek
D-11	Upland	Temporary	17.2	Sediment Control for Mining Areas	37-30-17	82-02-03	Unknown Tributary of Right Fork of Lower Elk Creek
D-12	Upland	Temporary	56.1	Sediment Control for Mining Areas	37-30-05	82-02-10	Unknown Tributary of Right Fork of Lower Elk Creek
D-13	Upland	Temporary	46.4	Sediment Control for Mining Areas	37-29-52	82-02-01	Unknown Tributary of Right Fork of Lower Elk Creek

Instructions

LIST ONLY NEW OR PREVIOUSLY UNPERMITTED STRUCTURES

- ID Number: Provide the structure's identification number.
- Upland/In stream: Indicate whether the structure is on the bench, in-stream or upland.
- Permanent/Temporary: Indicate whether the structure is permanent or temporary
- Drainage Area: Provide the contributing drainage area in acres.
- Activities: List the types of activities within the contributing drainage area, i.e; fills, haul roads, surface mines, underground mines, etc.
- Latitude: Provide the latitude of the structure.
- Longitude: Provide the longitude of the structure.
- Receiving Stream: Name of the water body, which receives the structure's discharges.

(Attach additional pages if necessary)

FORM NOI-CM

Fill Inventory

ID Number	Permanent/Temporary	Fill Size (acres)	Watershed Size (acres)	Latitude (dd-mm-ss)	Longitude (dd-mm-ss)	Impacted Stream (name)
N/A						

Instructions

ID Number: Provide the structure's identification number.
Permanent/Temporary: Indicate whether the fill is permanent or temporary.
Size: Provide the size of the fill in acres.
Watershed: Provide the watershed size in acres above the lowest point of the permanent fill.
Latitude: Provide the latitude of the fill.
Longitude: Provide the longitude of the fill.
Impacted Stream: Name of the water body in which the fill is being placed

(Attach additional pages if necessary)

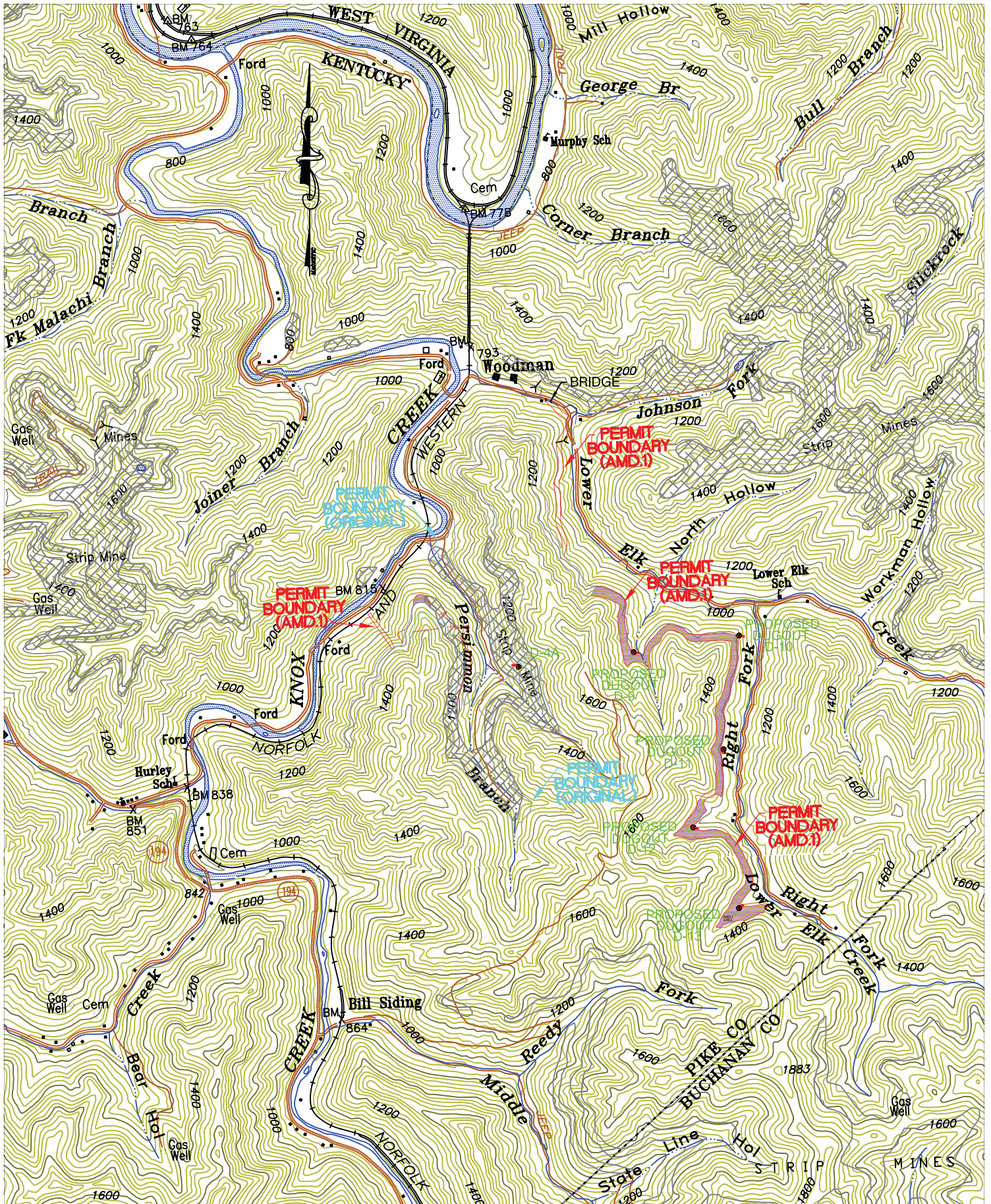
Stream Crossings Inventory


ID Number	Permanent/Temporary	Stream Crossing Type	Watershed Size (acres)	Latitude (dd-mm-ss)	Longitude (dd-mm-ss)	Impacted Stream (name)
N/A						

Instructions

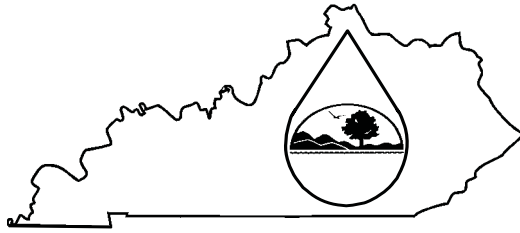
ID Number: Provide the stream crossing's identification number.
Permanent/Temporary: Indicate whether the stream crossing is permanent or temporary.
Type: Provide the type of crossing, i.e. bridge, culvert, low water, etc.
Watershed: Provide the watershed size in acres above the stream crossing.
Latitude: Provide the latitude of the stream crossing.
Longitude: Provide the longitude of the stream crossing.
Impacted Stream: Name of the water body in which the stream crossing is being placed

(Attach additional pages if necessary)



DATE: 02-16-10	FILENAME: 898-0822 Location.dwg	CLINTWOOD ELKHORN MINING COMPANY 23956 HIGHWAY 194E FEDS CREEK, KENTUCKY 41524	 SUMMIT ENGINEERING INC.
SCALE: 1"=2000'	P.N. 898-0822 A1		
DRAWN BY: A.M.B.	PAGE NO. 5A.1	BLAIR MINE GENERAL LOCATION MAP PERSIMMON BRANCH - MAJESTIC QUAD	

KPDES FORM SDAA



Kentucky Pollutant Discharge Elimination System (KPDES)

Socioeconomic Demonstration and Alternatives Analysis

The Antidegradation Implementation Procedure found in 401 KAR 10:030, Section 1(3)(b)3 requires KPDES permit applications for new or expanded discharges to waters categorized as "Exceptional or High Quality Waters" to conduct a socioeconomic demonstration and alternatives analysis to justify the necessity of lowering local water quality to accommodate important economic or social development in the area in which the water is located. This demonstration shall include this completed form and copies of any engineering reports, economic feasibility studies, or other supporting documentation

I. Project Information

Facility Name: Clintwood Elkhorn Mining Co. (P.N. 898-0822 Am #1)

Location: Persimmon Branch

County: Pike

Receiving Waters Impacted: Persimmon Branch & Lower Elk Creek

II. Socioeconomic Demonstration

1. Define the boundaries of the affected community:

(Specify the geographic region the proposed project is expected to affect. Include name all cities, towns, and counties. This geographic region must include the proposed receiving water.)

This proposed project is located on Persimmon Branch (off of St. Rte. 2059) near latitude 37-30-54 and longitude 82-02-55. The entire surface area of the project is 36.8 acres, being added by Amendment #1. The nearest community is Woodman (which is approximately 0.5 miles to the N). Knox Creek (HUC # 05070201-080-130) and Lower Elk Creek (HUC # 05070201-080-140) are the receiving streams for the proposed discharges. The proposed project is expected to affect Pike County as a whole; including communities in Woodman and the surrounding areas. Some nearby neighborhoods are Bill Siding (which is 1.5 miles to the SW) and Devon, WV (which is 1.7 miles NW).

2. The effect on employment in the affected community:

(Compare current unemployment rates in the affected community to current state and national unemployment rates. Discuss how the proposed project will positively or negatively impact those rates, including quantifying the number of jobs created and/or continued and the quality of those jobs.)

See Attachment

II. Socioeconomic Demonstration- continued

3. The effect on median household income levels in the affected community:

(Compare current median household income levels with projected median household income levels. Discuss how proposed project will positively or negatively impact the median household income in the affected community including the number of households expected to be impacted within the affected community.)

This mining operation would continue to provide employment for an estimated 20 employees. These mining positions prove to be higher paying jobs than other industries in Pike County, specifically near small communities in the Woodman area. This also positively affects as many as 40 employees in the support industries that will help to supply the material and equipment needed for mining, as well as other services, such as engineering and training. See the table below for a comparison of weekly income data for this county.

Wages	Pike
All Industries	\$711.86
Mining	\$1,178.17
2008, Kentucky Workforce Development Cabinet	

The average weekly wage in the mining industry is approximately 40% higher compared to the average weekly wage for all industries in Pike County. Loss of these higher-paying jobs would result in decreased revenue to local businesses that cater to the needs of the employees on a daily basis. The loss will also result in a decrease of the purchasing power of the county as a whole.

In general, Pike County as a whole would be impacted positively by the increase in revenues that this project would create. Employees would have a more secure place of employment and an income that is higher than average. The families of the employees would also be helped by this more secure income. The purchasing power of the effected employees and their families would help reverse the unemployment trend for other workers in the area of the proposed project.

4. The effect on tax revenues of the affected community:

(Compare current tax revenues of the affected community with the projected increase in tax revenues generated by the proposed project. Discuss the positive and negative social and economic impacts on the affected community by the projected increase.)

Expansion of KDNR Permit No. 898-0822 will recover an additional 2 million tons of coal over 5 years. This will generate over \$94 million of taxable profit, of which the surrounding counties will receive a total of over \$14 million (15 percent). Additional revenue will be given to local businesses, generated through increased employment to handle support services catering to the mining operation directly and to the needs of the employees on a daily basis. Local income taxes, property taxes, and sales taxes will also add to revenue brought in by the mining facility.

Pike County permits local taxation on real estate finished goods and other tangible properties. The taxes are levied at the following rates per \$100 valuation (2007 data per Kentucky Revenue Cabinet): \$0.2240 for real estate, \$0.2179 for motor vehicles, and \$0.2499 for other tangible property. The proposed project will utilize the use of this selected class of properties and this tax will be additional money for government services to better serve the citizens. Schools will benefit because the increased property taxes would ensure better equipment, facilities, and better pay for teachers.

II. Socioeconomic Demonstration- continued

5. The effect on an existing environmental or public health in affected community:

(Discuss how the proposed project will have a positive or negative impact on an existing environmental or public health.)

As part of the mining and reclamation phase of the proposed project, any pre-existing rubbish within the permit area will be eliminated. Following the conclusion of mining, the permit area will be reclaimed. Reclamation will provide an enhanced habitat and environment for local species. During reclamation, all permitted areas will be stabilized to prevent erosion. Indigenous species will be planted to establish adequate re-vegetation and runoff from all re-graded areas will be diverted into sediment ponds to prevent sedimentation to nearby streams. The permit area will be in better condition once reclamation is completed. This will provide a healthier habitat for local species leading to a more balanced ecosystem.

In addition, recovery of the coal will increase severance tax revenues, a portion of which will be returned to the community. This money can be used for environmental protection such as sewage disposal, sanitation, and solid waste disposal, which will have beneficial effects on the existing environment and public health.

6. Discuss any other economic or social benefit to the affected community:

(Discuss any positive or negative impact on the economy of the affected community including direct and or indirect benefits that could occur as a result of the project. Discuss any positive or negative impact on the social benefits to the community including direct and indirect benefits that could occur as a result of the project.)

The increase in production levels is not only providing jobs for this operation at a higher-than-average weekly mining wage, but will require supporting jobs that will further benefit the local area. The increased employment that this job will provide, will help create additional revenue for the existing businesses in and around Pike County. The additional revenue for the local businesses and the severance tax dollars generated by this project (\$14 million), will provide the local government increased benefits in public safety (law enforcement, fire protection, ambulance services) and also aid industrial and economic development in the surrounding communities.

Once reclamation is completed, the land associated with this permit can be utilized for recreational purposes, wildlife habitat, or used otherwise to improve the local community.

III. Alternative Analysis

1. Pollution prevention measures:

(Discuss the pollution prevention measures evaluated including the feasibility of those measures and the cost. Measures to be addressed include but are not limited to changes in processes, source reductions or substitution with less toxic substances. Indicate which measures are to be implemented.)

Several alternatives were evaluated for prevention of water pollution in this project area. Evaluated alternatives include:

a. Avoidance of the project (short-term)

Avoiding this project would mean that the advantages of economic development in the Pike County area would not be realized. At a minimum, 20 local jobs would be lost, the tax base would diminish (\$94 million in taxable profit), and local businesses would not prosper to the same extent.

b. Additional Levels of Separation

Further prevention could include reducing the disturbed surface area or separating the storm runoff from undisturbed areas and active site runoff.

c. Preventative Design - Implementation Intended

Preventative designs should include: creating only moderate gradients and inclines to slow runoff or diverting waterways and drainage. With these methods, the amount and frequency of flow through active mine sites can be reduced. The mine sites sediment ponds will store any runoff leaving the site and provide an adequate time to settle the sediment. As necessary and practicable, flocculants and chemicals could be added to treat the water if higher levels of certain chemicals and compounds are observed.

2. The use of best management practices to minimize impacts:

(Discuss the consideration and use of best management practices that will assist in minimizing impacts to water quality from the proposed permitted activity.)

Mine BMPs could include creating only moderate gradients and inclines to slow runoff or diverting waterways and drainage. With these methods, the amount and frequency of flow through active mine sites can be reduced. The water that does leave the site should pass through a system of sediment ponds. Each should retain any runoff leaving the site and allow adequate time to settle the sediment. As necessary and practicable, flocculants and chemicals could be added to treat water that present higher levels of certain chemicals and/or compounds.

Ponds should be sized to accommodate a 25-year, 24-hour rain event. The ponds should be placed in suitable locations, away from any steep topography or buffer zones.

Riparian zones should be left adjacent to streams to protect surface water from runoff and mining contaminants.

All structures should be inspected following significant rainfall events, and if necessary and practicable repairs will be made.

Additionally an undisturbed natural barrier could be maintained throughout mining, at the lowest disturbed elevation and extend from the out slope. This vegetative buffer could serve the function of improving water quality by the collection of sediment and the reduction of erosion.

With the conclusion of mining, the area will be reclaimed. Any affected streams should be stabilized and restored, and a riparian buffer will be established. These rehabilitated streams will curb sedimentation and provide a habitat for aquatic species and wildlife.

III. Alternative Analysis – continued

3. Recycle or reuse of wastewater, waste by-products, or production materials and fluids:

(Discuss the potential recycle or reuse opportunities evaluated including the feasibility of implementation and the costs. Indicate which of these opportunities are to be implemented)

Water does play a key part in mining operations as a means of alleviating airborne coal dust by misting / spraying the area. However, dust suppression is generally used only in times of dry weather when the flow of the surface discharge is low or non-existent. In addition, the amount of water required for dust suppression is minimal compared to the discharge generated. The total watershed drainage area for this project is estimated to be 36.8 acres, with a peak discharge of over 45 million gallons per day (24-hr/25-yr storm). Water used for dust suppression in a day would be about 10,000 gallons. This would be approximately 0.02% of the storm water for this project. This leaves the remaining storm water discharge for removal from or use on the project site.

The use of the on-site storm water for the watering of reclaimed areas was considered. However, because the slope of the area is greater than 6%, the absorption rate would not support land application.

4. Application of water conservation methods:

(Discuss the potential water conservation opportunities evaluated including the feasibility of implementation and the costs. Indicate which of, of these opportunities are to be implemented)

Water collected by the project's sediment ponds, before being discharged, will be used for dust suppression as is necessary. While only 0.02% of the total discharge will be needed for dust suppression, reusing this water will prevent possible withdrawals from other sources, i.e. natural streams and wells.

Other options are available to conserve waste water quality. They include using a system of thickeners and vacuum cleaners, or using reverse osmosis filtration systems. The average cost for a reverse osmosis plant capable of handling 5,000 gallons is an estimated \$2.9 million. These alternatives were deemed non-feasible due to the extra costs, power lines, additional site disturbance, and increase operating cost. This cost was deemed inappropriate for this proposed project.

Upon completion of the project, the water required for remediation, including hydro-seeding, may also be provided by on-site detained water. Again alleviating the possible withdrawal from other sources such as wells or streams.

III. Alternative Analysis – continued

5 Alternative or enhanced treatment technology:

(Compare feasibility and costs of proposed treatment with the feasibility and costs of alternative or enhanced treatment technologies that may result in more complete pollutant removal. Describe each candidate technology including the efficiency and reliability in pollutant removal and the capital and operational costs to implement those candidate technologies. Justify the selection of the proposed treatment technology.)

The discharge from the permit site will be the result of storm water run off, drainage of the watershed, as well as run off from the dugouts, which are used for sediment and drainage control.

As an alternative treatment option, a waste water treatment plant was evaluated.

The construction of a waste water plant was deemed not applicable for this permit due to the cost. The construction of a water treatment facility (more than 45 million gallons per day) on the project site would cost over \$142 million, plus an additional cost of approximately \$50,000 for a containment reservoir. In addition, the construction of such a facility would require more surface disturbance for the construction of the facility. If a plant were constructed and utilized for some of the storm water, there would be no future use for the facility post mining. Prior to bond release, the site would have to be dismantled and the site restored to pre-mining conditions. This would cost approximately \$24,000; at a rate of \$20.00 per hour for a total of 1,200 man hours.

The cost of pumping the waste water to a nearby plant would be approximately \$12 million. A major obstacle in the pumping of the discharge to a treatment facility, is the local topography of the area. In addition, the local plant would need to make improvements/upgrades in order to be able to handle the additional volume. Additionally, the nearest plant is not set up for reoccurring high volume sediment.

6. Improved operation and maintenance of existing treatment systems:

(Discuss improvements in the operation and maintenance of any available existing treatment system that could accept the wastewater. Compare the feasibility and costs of improving an existing system with the feasibility and cost of the proposed treatment system.)

The nearest treatment plant is the Williamson Water Department facility approximately 35 miles away from the proposed project.

Transportation of the discharge to the nearest treatment plant via pipe or truck was investigated. It would cost approximately \$8.3 million (180,000 feet of 24" diameter HDPE pipe at \$67/ft) to run the necessary pipe to the nearest municipal water treatment plant, which is the Williamson Water Department facility. Trucking the discharge would require 9,000 trucks with a capacity of 5,000 gallons each, working 24 hours a day, to haul the discharge to the treatment plant at Williamson. The trucks would cost approximately \$8.8 million for rental and maintenance and gas would cost over \$13.7 million. Estimating labor for drivers of the trucks to be \$4 million and allowing for maintenance of the vehicles, the total cost for truck transport would be over \$26.6 million. The costs for pumping or hauling the discharge from the discharge site to the treatment plant at Pikeville would be excessive and non-feasible.

III. Alternative Analysis – continued

7. Seasonal or controlled discharge options:

(Discuss the potential of retaining generated wastewaters for controlled releases under optimal conditions, i.e. during periods when the receiving water has greater assimilative capacity. Compare the feasibility and cost of such a management technique with the feasibility and cost of the proposed treatment system.)

The construction of sediment ponds could be implemented to ensure the controlled release of waste water generated under optimal conditions. The ability of the local environment to assimilate run off is based on the features of the local streams (the stream, riparian zone, flood plain). Any compromise to the areas ability to assimilate run off, due to vegetative removal, should be mitigated by the construction of sediment ponds. The ponds will retard the velocity of the storm water, allowing more settling time for sediment and reducing the impact on the local environment. The ponds could be constructed to accommodate a 25-year, 24-hour rain or flood event and ponds should not be placed in areas with steep topography or in buffer areas.

8 Land application or infiltration or disposal via an Underground Injection Control Well

(Discuss the potential of utilizing a spray field or an Underground Injection Control Well for shallow or deep well disposal. Compare the feasibility and costs of such treatment techniques with the feasibility and costs of .proposed treatment system.)

Sub-surface and onsite disposal options are not feasible for this project. The installation of a french drain / leach line or the use of spray irrigation were both deemed unsuitable due to the slope of the area being greater than 6%. The installation of a sanitary septic system, (i.e., septic tank) was evaluated but is not an applicable option.

The typical septic tank is designed to hold only 1,000 gallons. This job could produce up to or in excess of 45 million gallons a day during a storm event (24-hr/25-yr). With this anticipation, it would require at least 45,000 septic systems with drain fields up to an acre each for each event. This site will not have adequate useable space that this number (45,000 systems per day storm) of systems could be placed.

Septic systems are designed to digest organic waste and biodegradeable material over time by anaerobic digestion. While the source water would most likely contribute some organic material and some needed bacteria, this would be inadequate to decompose the sediment and would work essentially the same as a sediment structure.

The possibilty of drilling injection wells (to inject the discharges underground) was also considered. Depending on the depth, an injection well could cost up to \$50,000 per well. At a value of 45 million gallons a day during a storm event and assuming that 1,000 gallons a day could be injected into the wells, it would take at least 45,000 wells to dispose of the storm water. Injecting these discharges underground would also increase the potential of an outcrop blowout or blowout from an old adit. Injecting this water underground would also require a UIC permit. There hasn't been found a suitable place to inject within a reasonable distance of this site.

The storm water and drainage will accumulate over time so that on-site or subsurface disposal will not be adequate over the long-term.

III. Alternative Analysis – continued

9 Discharge to other treatment systems

(Discuss the availability of either public or private treatments systems with sufficient hydrologic capacity and sophistication to treat the wastewaters generated by this project. Compare the feasibility and costs of such options with the feasibility and costs of the proposed treatment system.)

Alternative treatment works have been investigated, including piping and trucking the discharge to the nearest water treatment plant. The nearest water treatment is the Williamson Water Department facility which is approximately 35 miles downstream.


The cost of gathering the storm water for pumping to this facility would be \$8.3 million. This price is comprised of the cost of pipes (at a rate of \$67 per foot) and \$24,000.00 for the pump station. Furthermore, additional expenses would be incurred for the maintenance of the pumps. Maintenance entails a standard inspection involving draining the wet wells, cleaning the inside with high pressure water, and checking all apparatus for wear and damage. Ideally, this will need to be done every 4 months. Energy costs for the pumps also need to be considered. There would be the additional costs for right of way requirements. The treatment plant would need a sedimentation basin to remove the silt prior to allowing it to enter the plant. Ultimately, the pump stations and piping will be obsolete after bond release, thus making them non-cost efficient.

Another option for transport to the treatment facility would involve the use of self-contained disposal trucks. At a rate of \$80/hr rental fee for a 5000 gallon water truck and driver and allowing 4 hours to load, travel, unload and return to site, it is estimated that one truck can transport a total of 3 loads of water per 12 hour work day at a cost of \$960/day per truck. Considering that a single peak storm event may produce 45 million gallons of water, 9,000 trucks would be required to transport the peak storm run off. The rental for 9,000 trucks would be \$8.8 million/day. With the addition of maintenance, labor for drivers, and gas cost added to the initial estimate, the final estimated cost would be \$26.6 million/day for transporting a single peak storm event. This is assuming that 9,000 trucks could be loaded (3 times each) in a 12 hour shift.

Even if we consider the alternative of purchasing the trucks (initial purchase price of approximately \$50,000 each) rather than paying the rental fee, the cost per single storm event would be approximately \$457 million for the trucks alone. There would be the additional cost of insurance for the vehicles (a cost that would be included with the rental fee), as well as fuel costs and the labor for the drivers.

For this reason, the transport of the run off to other treatment systems was deem non-cost effective.

IV Certification: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Title:	J. J. Shackleford - President	Telephone No.:	(606) 835-4006
Signature:		Date:	Feb 22, 2010

II. Socioeconomic Demonstration**2. The effect on employment in the affected community:**

(Compare current unemployment rates in the affected community to current state and national unemployment rates. Discuss how the proposed project will positively or negatively impact those rates, including quantifying the number of jobs created and/or continued and the quality of those jobs.)

The economy in this portion of Pike County is dependent on the mining industry. Therefore, this operation will provide for the continuation of approximately 20 jobs directly in the area work force. See the table below for a comparison of weekly wage data for this county.

Wages	Pike
All Industries	\$711.86
Mining	\$1,178.17
2008, Kentucky Workforce Development Cabinet	

This also positively affects as many as 40 employees in the support industries that will help to supply the material and equipment needed for mining, as well as other services, such as engineering and training.

The August 2009 unemployment rate for Pike County is estimated at 11.4% (an increase of 5.7% from August 2008), slightly higher than the Kentucky average of 10.8% and almost a full percentage higher than the 9.6% average for the entire United States. See the table below for additional employment data for Pike County.

Pike County, KY Employment Data	
Labor Force	26,648
Percent Unemployment	11.4
Total Unemployed	3,032
August 2009, Kentucky Workforce Development Cabinet	

With the current unemployment rates in this country, if Clintwood Elkhorn Mining Co. is not permitted to discharge water from this mine site, the local and state economy will be harmed due to the increased unemployment rate (loss of 20 direct jobs and 40 indirect jobs). These 20 jobs directly affected by this project will be completely lost, as the mine will not be allowed to operate. Loss of these jobs would increase the unemployment rate in Pike County, adding to the already elevated unemployment rate.

The addition of mining acreage on KDNR Permit No. 898-0822 will recover an additional 2 million tons of coal over 5 years. This will generate over \$94 million of taxable profit, of which the surrounding counties will receive a total of over \$14 million (15 percent). Additional revenue will be given to local businesses, generated through increased employment to handle support services catering to the mining operation directly and to the needs of the employees on a daily basis. Local income taxes, property taxes, and sales taxes will also add to revenue brought in by the mining facility.